

Taking Advantage of the Growing Entry-Level Digital Signage Market

Intel® Reference Design for Digital Signage (EL-10) enables manufacturers to streamline the creation of inexpensive digital signage solutions and grow market share in an environment of rapidly increasing demand.



Intel® Reference Design for Digital Signage (EL-10) provides product manufacturers and operators an entry-level, turnkey digital signage solution powered by the Intel® Atom™ Processor E3815.

OVERVIEW

Retailers on a global scale are realizing the added value of engaging customers with dynamic digital signage. One forecast estimates the market to grow to more than USD14.8 billion by 2020.¹ At the entry level, there is a growing demand for affordable solutions that can still deliver a high-definition experience, are simple to control with intuitive content management systems (CMS), and provide an intelligent vending option.

FEATURE-RICH, ENTRY-LEVEL DIGITAL SIGNAGE

The Intel® Reference Design for Digital Signage (EL-10) offers a range of features that make it a leader in the entry-level market, including:

- HD simultaneous decoded streaming for at least two video streams
- Multivideo format playback (HD, 2K, 4K [decode only], flash)
- Web application support (HTML5)
- Touch-screen interactivity

This reference design's combination of affordability, best-in-class performance, and preloaded hardware and software provides manufacturers a turnkey solution to take advantage of the rapidly growing entry-level digital signage market. See Table 1 for a more complete list of specifications.

REFERENCE DESIGN

The Intel® Reference Design for Digital Signage (EL-10) provides digital signage manufacturers with a comprehensive, entry-level platform to create OS and CMS preloaded solutions that can be delivered through channel partners. This comprehensive reference design can significantly reduce time to market for digital signage and enable:

- Turnkey digital signage solutions supporting Android, Wind River* Linux*, and Windows*.
- Best-in-class performance for media and graphics such as HD decoding in Intel® Atom™ Processor E3815
- Faster development based on preloaded hardware design IP with Android BSP.

The reference design contains several hardware and software components.

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HARDWARE

The new Intel® Atom™ processor E3815 is a system-on-chip (SoC) that delivers a powerful graphics engine, display support for HDMI, high I/O connectivity, integrated memory controller, virtualization, and built-in security capabilities. The media player also includes USB 2.0 and 3.0 ports, HDMI output, and RJ45 Ethernet making for simple plug-and-play implementation. It is ideal for efficient imaging workflows and secure content delivery in digital signage.

SOFTWARE

Manufacturers can choose from three operating systems to support: Windows*, Android* 4.4 Kit Kat, or Wind River* Linux*. Depending on OS selected, the reference design will also support CMS solutions such as Intel® Retail Client Manager and Android CMS.

ADVANCED FEATURES FOR INTELLIGENT VENDING

In addition to the specifications listed in Table 1, manufacturers interested in using the Intel® Reference Design for Digital Signage (EL-10) for intelligent vending applications can opt for the following advanced features:

- LVDS for LCD support
- Wind River Linux support
- Vending machine I/O module

This reference design provides a cost-effective, scalable, and flexible compute platform for intelligent vending. The ability to connect to the Internet allows brands and operators to take advantage of new business opportunities, cloud services, and data analytics.

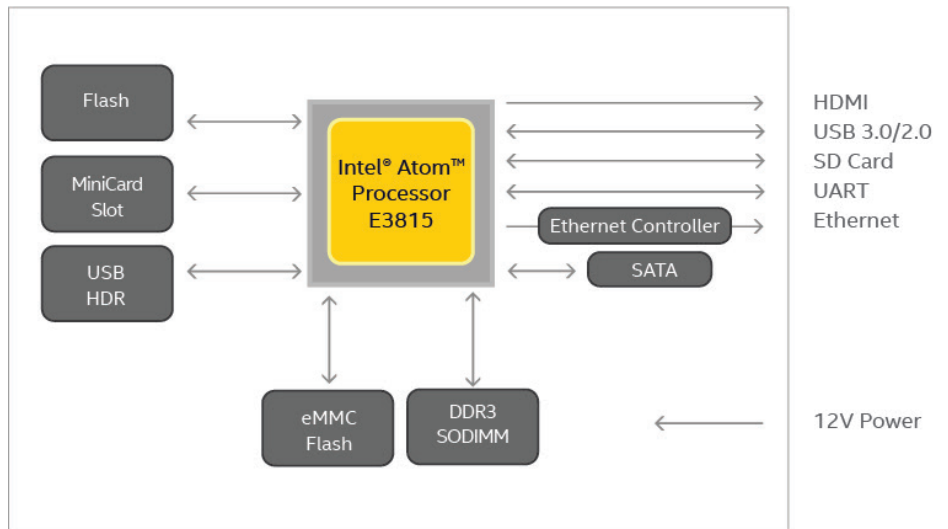


Figure 1. The Intel® Reference Design for Digital Signage (EL-10) runs on the Intel® Atom™ Processor E3815.

FEATURE	SPECIFICATION
Processor	Intel® Atom™ Processor E3815
HDMI	1.4a output
Ethernet	10/100/1000 Mbps RJ45
SODIMM	DDR3 x 1 (1.35V)
eMMC	4 GB (up to 32 GB supported)
uSFF Chassis	4"x4"
Card Slot	MicroSD
USB	3.0 x 1, 2.0 x 2 (1 internal)
Serial Port	RS232 (DB9)
PCIe Minicard Slot	Full size
Storage	SSD
OS Options	Microsoft* Windows*, Android* 4.4 Kit Kat, Wind River* Linux*
Power Adapter	12 V
Dimensions	107.6 mm (W) x 114.4 mm (L) x 56.1 mm (H)

Table 1. Specifications for Intel® Reference Design for Digital Signage (EL-10)

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NEXT STEPS

Contact Intel® Internet of Things Solutions Alliance members [GIGABYTE](#) or [J&W IPC Technology](#) for more information about solutions based on Intel® Reference Design for Digital Signage (EL-10).

FOR MORE INFORMATION, VISIT INTEL.COM/EL10



¹ "Digital Signage Market by Hardware, Software (Edge Server, Distribution & Scheduling, Content Management), Application (Commercial, Infrastructure, Institutions, Industrial), Products (Indoor & Outdoor) & by Geography – Forecast to 2014 – 2020," <http://www.marketsandmarkets.com/PressReleases/digital-signage.asp>

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